

## LINK QUALITY AGENT

### ABSTRACT OF THE INVENTION

A link quality agent running in a computer embedded in a device, such as an optical communication transceiver, to monitor an optical signal quality of the link. In one embodiment, avalanche photodiode (APD) and filter wheel values on each side of the free space link as well as packet errors from a distribution switch are monitored. When the link quality agent determines that the free space link is marginal (based on the monitored optical signal quality), the link quality agent configures down the port between the distribution switch and the router on the receive end of the free space link, and forces customer traffic over a backup link. When both ends of the free space link are again functional, the link quality agent configures the port up and routes customer traffic to the free space link.